

20. (New) The telecommunications fiber optic infrastructure according to claim 17, wherein the fiber span configurations include at least one of a point-to-point span configuration and a ring fiber span configuration.

REMARKS

With the addition of claims 15 to 20, claims 1 to 20 remain pending in the above-referenced. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

The oath or declaration is objected to by the Examiner because it did not state whether the invention is a sole or joint inventor of the invention claimed. A new declaration that overcomes this deficiency is attached hereto.

Claims 1 to 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 5,701,380 to Larson et al. ("Larson") in view of United States Patent No. 5,784,516 to Parzygnat et al. ("Parzygnat"). It is respectfully submitted that the combination of Larson and Parzygnat does not render claims 1 to 14 unpatenable for the following reasons.

Claim 1 relates to a fiber center distributing frame which forms a cable interface from at least one remote equipment to a least one central office equipment. In particular, claim 1 recites, *inter alia*, that the fiber center distributing frame includes at least one fiber center distributing frame module with an inside plant portion having a plurality of inside mounting positions each in a designated state selected from a group of operating states consisting of equipped, unequipped, and spare. Consequently, it is respectfully submitted that having such designated operating states associated with each mounting position better facilitates the management and reuse of fiber cable infrastructure. In this regard, the present application provides, for example, that:

In addition to providing the capacity to manage a floor plan that evolves with future developments, *the process and apparatus of the present invention provides the user OTCs with the capacity to manage equipment cables over the life expectancy of each cable*. Assume the life expectancy of fiber equipment cable to be 25 years and the life expectancy of central office equipment to be 10 years. All equipment will be installed, assigned, spared, retired and removed in approximately 10 years. The equipment will change out 2.5 times over the life of

the fiber cable infrastructure. It can therefore be concluded that the equipment is a plug-in that temporarily occupies a position in the physical fiber infrastructure. *Significant amounts of the fiber cable infrastructure can now be managed and reused, rather than abandoned and new fiber cable installed with the equipment representing new technology. In the Fiber Center, the physical fiber infrastructure is installed, managed, used and reused.* The fabric of the infrastructure is the physical fiber cable. The Fiber Center is designed to evolve over time in an organized and manageable fashion. The specific goal is to respond to the deployment of OSP cable with the deployment of a complement of groomed equipment cable, to equip that cable and ultimately retire the equipment and re-equip the same cable. This scenario provides the user with the opportunity to change, rearrange or upgrade the connector assemblies during the interval between equipment retirement and the re-equipping of the equipment cable. Figure 23 illustrates an example of the evolution of the fiber cables in a Fiber Center in accordance with an embodiment of the present invention. Figure 23 shows one FCDF mod over four time intervals.

Equipment terminations on a specific FCDF mod shelf evolve in a manner similar to the fiber cable evolution described above. Figure 24 illustrates the evolution of equipment terminations on an FCDF mod shelf in accordance with one embodiment of the invention. Figure 24 shows one FCDF mod equipment shelf (termination locations) over seven successive time intervals. In Figure 24, equipment shelf 2401 illustrates the initial deployment of equipment cable on a particular FCDF mod Growth Unit shelf. Equipment shelf 2402 shows continued deployment and equipment shelf 2403 illustrates full deployment. Equipment shelves 2404 and 2405 represent that period of time, either before or at full deployment, when equipment upgrades cause most or all of the initial equipment cables to become spare and when the obsolete equipments can be retired and removed. Equipment shelves 2406 and 2407 illustrate the subsequent re-equipping of the initially deployed equipment cables, the progressive upgrades to new technology which enables the retirement and removal of obsolete equipments on a going forward basis.

(Specification, page 50, line 1, to page 51, line 23) (emphasis added).

As regard Larson, it merely purports to relate to a fiber cable distribution frame 1 which allows complete front access to the frame and eliminates the need to maintain floor space behind for rear access by providing tray modules 4 that are mounted in the framework/housing 2, which can be slid out to expose both sides of an inner mounted fiber cable adapter(s) 9 and associated connectors 10, 11, so that access to the rear of the fiber

distribution panel is not necessary to affect changes to the connectors mounted on the rear side of the fiber cable adapter(s) 9. (See Larson, col. 2, lines 49 to 60; Figure 1 and related text). It is respectfully submitted that Larson does not disclose, or even suggest, “a plurality of inside mounting positions ... in a designated state ... of: equipped, unequipped and spare” as recited in claim 1. Indeed, Larson does not disclose, or even suggest, any designated states at all. Although the Office Action asserts that “each one of the inside mounting positions is equipped when a cable is connected to the connector and unequipped when no cable is connected”, such an assertion is merely reconstruction and speculation with no basis in the prior reference cited. Moreover, such an assertion teaches away from the present invention since the Office Action’s basis for defining the state of the connector as either “connected” or “unconnected” necessarily limits the total number of possible states to only two, thereby eliminating the possibility of a designated spare state.

As regards Parzygnat, it is respectfully submitted it likewise does not disclose, or even suggest, “a plurality of inside mounting positions ... in a designated state ... of: equipped, unequipped and spare” as recited in claim 1. Indeed, the Office Action uses Parzygnat solely for allegedly disclosing use of a optical distribution frame as a cable interface between remote equipment and central office equipment.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Accordingly, it is respectfully submitted that since the combination of Larson and Parzygnat does not disclose, or even suggest, all of the limitations of claim 1, as more fully set forth above, such a combination of Larson and Parzygnat does not render claim 1 unpatentable.

As for claims 2 to 14, which ultimately depend on claim 1, it is respectfully submitted that these claims are patentable for at least the same reasons given in support of the patentability of claim 1.

Claims 1 to 5, 7, and 9 to 14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over United States Patent No. 4,490,229 to Ghandeharizadeh et al. ("Ghandeharizadeh") in view of Parzygnat. It is respectfully submitted that the combination of Ghandeharizadeh and Parzygnat does not render these claims unpatentable for the following reasons.

As regards Ghandeharizadeh, it purportedly concerns an optical distribution apparatus 10 with slide-out trays 20 having a hinged protective cover 43 and front portion 21 which drops down to provide access to optical connectors 32, 35 mounted therein, and an additional splice tray 30 mounted on a platform 24 elevated from the slide-out tray 20 so that fibers 26 coming into the tray can be stored in a gap 50 formed thereby. (See Ghandeharizadeh Abstract, Figure 1, 2, and related text). It is respectfully submitted that Ghandeharizadeh does not disclose, or even suggest, "a plurality of inside mounting positions ... in a designated state ... of: equipped, unequipped and spare" as recited in claim 1. Indeed, Ghandeharizadeh does not disclose, or even suggest, any designated states at all. Although the Office Action asserts that "each inside mounting position is in a designated state selected from a group of operating states, including an equipped state when a cable is connected to the mounting position", such an assertion is merely reconstruction and speculation with no basis in the prior reference and ignores the possibility of a designated spare state.

As regards Parzygnat, as respectfully submitted earlier, it likewise does not disclose, or even suggest, "a plurality of inside mounting positions ... in a designated state ... of: equipped, unequipped and spare" as recited in claim 1. Indeed, the Office Action uses Parzygnat solely for allegedly disclosing use of an optical distribution frame as a cable interface between remote equipment and central office equipment.

To reject a claim as obvious under 35 U.S.C. § 103, the prior art must disclose or suggest each claim element and it must also provide a motivation or suggestion for combining the elements in the manner contemplated by the claim. (See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990)). It is therefore respectfully submitted that since the combination of Ghandeharizadeh and Parzygnat fails to disclose, or even suggest, all of the limitations of claim 1, as more fully set forth above, it is respectfully submitted that such combination of Ghandeharizadeh and Parzygnat does not render claim 1 unpatentable.

As for claims 2 to 5, 7, and 9 to 14, which ultimately depend on claim 1, Applicant submits that these claims are patentable for at least the same reasons given in support of the patentability of claim 1.

Moreover, it is further respectfully submitted that the Office Action is deficient, in that it does not allege that the subject matter of the claims, as a whole, would have been rendered obvious, as required to sustain a rejection under 35 U.S.C. § 103(a). The Office Action merely recites specific features which are allegedly present in the respective references and does not allege that these features would be combined, by a person of ordinary skill in the art, to provide all the limitations of the claims, as a whole.

In summary, it is respectfully submitted that all of claims 1 to 14 are allowable for the foregoing reasons.

New claims 15 to 20 have been added herein. It is respectfully submitted that new claims 15 to 20 do not add any new matter and are fully supported by the present application, including the Specification. In particular, claim 15 is supported at least on page 23, lines 4 to 15; claim 16 is supported at least on page 24, lines 7 to 9; claim 17 is supported at least on page 18, lines 4 to 14; and claims 18 to 20 are supported at least on page 19, lines 10 to 18. New claims 15 to 20 ultimately depend from claim 1 and therefore are allowable for at least the same reasons that claim 1 is allowable.

CONCLUSION

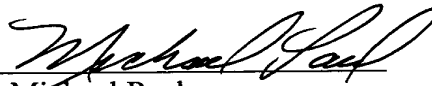
Attached hereto is a marked-up version of the changes made to the claims by the current Amendment. The attached page is captioned "VERSION WITH MARKINGS TO SHOW CHANGES MADE."

In view of the above, it is believed that the rejections have been obviated, and that claims 1 to 20 are allowable. Applicant asserts that the present invention is new, non-obvious, and useful. It is therefore respectfully requested that the rejections be withdrawn, and the present application issue as early as possible.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 1 has been amended as follows:

1. (Twice Amended) A telecommunications fiber optic infrastructure, comprising:

a fiber center distributing frame which forms a cable interface from at least one remote equipment to at least one central office equipment, said fiber center distributing frame further comprising:

[a] at least one fiber center distributing frame module having an outside plant portion, an inside plant portion, and an equipment cable port, said at least one remote equipment connecting to said outside plant portion and said at least one central office equipment connecting to said outside plant portion through said equipment cable port, and said outside plant portion being proximately located to said inside plant portion;

said inside plant portion of said fiber center distributing frame module further comprising a plurality of inside mounting positions wherein each one of said plurality of inside mounting positions is in a designated state selected from a group of operating states including: equipped, unequipped and spare; and

wherein said connection from said outside plant portion to said inside plant portion is made to any one of said plurality of inside mounting positions which is in said equipped operating state.